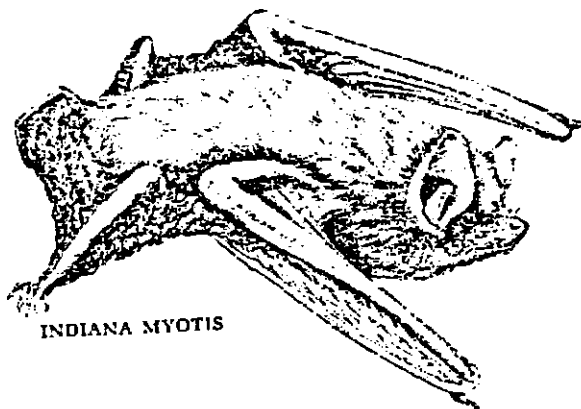


### Description:

The Indiana Bat is a nocturnal insect eater of medium size (2.9-3.7 in). Its dark gray or chestnut to light-brown fur is not glossy. The ears reach down to the tip of the pink nose when layed forward. As with most Vespertilionids, the Indiana Bat has a simple muzzle, lacking the epidermal flap termed the noseleaf. Other distinguishing characteristics include a short, blunt tragus ( a specialized ear projection), small hind feet, a strongly keeled calcar ( cartilage support at outer edge of tail membrane), and a long tail.



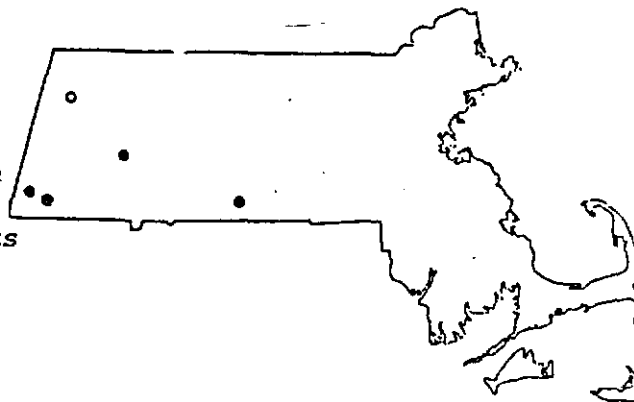
### Endangered Status:

Two thirds of this species' population is centered in seven caves in Indiana, Kentucky and Missouri. As of 1978, Richter et al. estimated a nationwide population of 509,900. There have been no confirmed sightings of *Myotis sodalis* in Massachusetts since 1939 and therefore it is listed as an endangered species in this state. The Indiana Bat has also been placed on the Federal list of endangered species.

### Statewide Occurrences:

Verified since 1978: 0  
Unverified/ Historical: 5

Distribution  
by town in  
Massachusetts



### Habitat:

The Indiana Bat is intolerant of warm temperatures, requiring a very specific microenvironment for survival. Along the southern edge of their range, the Indiana Bat will roost in caves even during summer whereas in the north, these bats will roost in hollow trees and under the dead bark of trees. As a migratory species, *Myotis sodalis* has the ability to home in on a specific cave site each fall. Swarming activity at the entrance to the hibernating caves peak in September. Most copulation occurs at this time although the females do not ovulate until spring, delaying fertilization. To maintain a stable ambient temperature during winter, the hibernating bats roost near the cave entrance. During this period, each individual awakens

once every 8 to 10 days to form small clusters deep within the cave. In colder weather, they form large, tightly-packed clusters. In spring, females leave the caves first. They spend the summer singly or in small groups in hollow trees or behind the dead bark, bearing a single young in late June. These insectivores hunt by night, searching for insects in tree tops along streams. By emitting ultrasonic sounds that bounce off obstacles and prey, the bat navigates. This process is called echolocation.

Cause of Rarity:

Flooding of caves and mines.

Fluctuations in the cave microenvironment.

Repetitious human disturbances of the hibernating roosts which arouse the bats and quicken metabolism. Fat stores are depleted more quickly and individuals starve.

Pesticides used to eradicate Big and Little Brown Bats. The Indiana Bat occasionally hibernates with mixed populations. Vandalism.

Similar Species:

The Indiana Bat resembles the Little Brown Bat (Myotis lucifugus), but this latter has a smaller tail, smaller hind feet and a more prominently keeled calcar.

Distribution of  
Myotis sodalis

